VERMONT ENERGY
INVESTMENT CORPORATION

June 17, 2011

Susan M. Hudson, Clerk
Vermont Public Service Board
112 State Street
Montpelier, VT 05620-2701

Re: Vermont Energy Investment Corporation Reply Comments for the Demand Resource Plan

Dear Ms. Hudson,

Vermont Energy Investment Corporation is pleased to provide to the Vermont Public Service Board (Board) the following reply comments on the recommendations regarding the Demand Resource Plan (DRP) and efficiency budgets. Getting to this point in the process has been challenging, and we expect that the Board's determination will not be the final action required in this proceeding. VEIC appreciates the leadership that the Department of Public Service (Department) has provided in reaching out to all parties to tackle the complex and interwoven components of Vermont's first Demand Resource Plan Proceeding.

Resource Acquisition Budgets

Central Vermont Public Service (CVPS) and Green Mountain Power (GMP) both support the budget recommended by the Department in its April DRP filing, They seek to limit energy efficiency investment in order to minimize rate impacts. As VEIC explained in its May 27 comments, the Department's budget would be insufficient to realize the Fixed Savings scenario targets because it proposes costs of acquiring savings that VEIC believes are unrealistically low. Were the Board to adopt the Department's budget, VEIC would have $49 million (2011$) less to spend on resource acquisition over the next two performance periods (2012-2017). As a result, significant electricity savings, economic benefits, and bill reductions resulting from the budget VEIC recommends for resource acquisition would be sacrificed. Indeed, as has been noted by the Conservation Law Foundation (CLF) and the Vermont Public Interest Research Group (VPIRG), there are substantial additional cost-effective savings to be achieved above and beyond the Fixed Savings scenario that VEIC has proposed.

Forgone electricity savings and economic benefits

Table 1 presents VEIC's best estimate of annual energy and peak demand savings achievable under the Department's budget recommendation. VEIC calculated these values by applying estimates of sector-level resource acquisition costs by year and VEIC's recommended

255 S. Champlain Street, Suite 7 Burlington, VT 05401-4894
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business/residential sector split. The Department agrees with VEIC's sector split recommendation.

TABLE 1

DPS Total Spending, VEIC Sector Spending Split, VEIC Yields

	Incremental Annual Savings at Generation (MWh)			Incremental Annual Summer Peak Demand Savings at Generation (MW)			Incremental Annual MWh and Peak MW Savings % of VEIC 3% Scenario		
	Residential	Business	Total	Residential	Business	Total	Residential	Business	Total
2012	41,890	63,009	104,900	5.1	14.2	19.3	83%	83%	83%
2013	41,741	63,630	105,371	5.1	14.5	19.6	81%	81%	81%
2014	43,285	63,547	106,833	5.2	14.5	19.8	78%	78%	78%
2015	39,127	62,562	101,689	4.5	14.4	18.9	73%	73%	73%
2016	43,642	65,451	109,094	5.0	15.0	20.1	79%	79%	79%
2017	46,470	66,949	113,419	5.3	15.6	20.9	84%	84%	84%
2018	45,868	66,267	112,135	6.8	15.4	22.2	85%	85%	85%
2019	44,901	69,801	114,701	6.6	16.3	22.9	89%	89%	89%
2020	43,028	61,316	104,344	7.9	14.3	22.1	84%	84%	84%
2021	44,016	60,635	104,650	8.0	14.1	22.1	86%	86%	86%
2022	44,902	60,696	105,598	8.1	14.1	22.3	89%	89%	89%
2023	45,486	60,333	105,818	8.2	14.1	22.3	91%	91%	91%
2024	45,747	59,523	105,269	8.3	13.9	22.1	93%	93%	93%
2025	46,547	59,235	105,782	8.3	13.8	22.1	96%	96%	96%
2026	46,575	58,944	105,520	8.3	13.7	22.0	98%	98%	98%
2027	46,043	58,405	104,448	8.2	13.6	21.8	99%	99%	99%
2028	46,398	57,821	104,219	8.3	13.5	21.7	101%	101%	101%
2029	46,195	58,016	104,211	8.2	13.5	21.7	104%	104%	104%
2030	46,013	57,859	103,873	8.1	13.5	21.6	105%	105%	105%
2031	46,466	57,421	103,887	8.2	13.4	21.6	108%	108%	108%
Sum of Incremental			2,125,758			427.1			
Percentage of VEIC 3% Scenario			89%			90%			
Percentage of DPS 3% Scenario			88%			133%			

By 2017, the Department budgets would produce approximately 150,600 MWh less in cumulative annual energy savings and 29 MW less in cumulative peak demand savings than VEIC's proposed DRP budgets. VEIC estimates that foregoing these savings in the first six years would deprive Vermont's economy of $147 million in societal benefits (2011$). Electric ratepayers would be denied $123 million in avoided electric energy and capacity costs. VEIC arrived at these estimated losses by multiplying yearly sector-level yields of societal benefits and electric resource benefits by annual differences in sector-level electricity savings between VEIC's Fixed Savings scenario and Table 1.

Fixed Savings Goal

The Department proposes that the Board adopt its Fixed Savings budget proposal and, in addition, set-aside 10% of the budget for geographic targeting (GT) of efficiency services. The Department acknowledges that this approach will not attain the DRP Fixed Savings scenario design goal of a 3 percent reduction in Vermont's annual energy consumption within five years that had been previously supported by VEIC and the Department.[1] The Department states that, "overall yield rates may be slightly reduced from those presented in the resource plan scenario analysis, resulting in savings slightly less than the annual acquisition of three percent of forecasted energy consumptions".[2]

VEIC disagrees with the Department's proposal characterization that it would result in savings ***slightly*** (emphasis added) less than the 3 percent goal for two reasons:

1. As VEIC stated in its May 27, 2011 comments, the Department's yield rates are not as reliable as those developed by VEIC and result in an inflated estimate of acquired savings, and
2. The cost of acquiring GT savings is higher than the cost of acquiring statewide savings. Therefore, setting aside 10 percent of the statewide budget for GT will further increase the estimated 12 percent variance (using VEIC yield rates and sector split) between the 3 percent goal and attained savings.

Rate and Bill Impacts

In support of their proposal, the Department asserts that the Energy Efficiency Utilities' (EEU) budgets need to be restrained due to the "consideration to rate and bill impacts and the desire for a reasonable pace of expansion of programs".[3]

VEIC disagrees with the Department's assessment of the rate and bill impacts. VEIC demonstrated in its May 27 comments that the Department's concern over the rate impacts of VEIC's recommended EEU budget is misplaced: it will raise average rates by only 0.5 percent for residential customers and by 3.4 percent for business customers compared to the Fixed Budget scenario.[4] VEIC concludes that sacrificing the benefits of cost-effective resource acquisition for the sake of lowering already modest rate impacts would not be in the public interest. The initial joint endorsement of a 3 percent annual savings goal was in part made with due consideration to the balance between rate and bill impacts and acquisition of cost-effective energy efficiency.

In their May 27 comments, CVPS and GMP contend that the lower Department EEU budget is appropriate because they conclude that bill and rate analysis overstate bill reductions and understate rate impacts. Both positions are predicated on expectations that avoided costs will be lower than the values used in the analyses of bills and rates.

Because the Fixed Savings scenario leads to negative load growth, CVPS maintains that there would be no avoided transmission and distribution (T&D) costs from pursuing it. This reasoning is flawed with respect to the value of peak demand saving before the DRP is implemented. While it might be true after the fact— avoided T&D costs from further electricity saving beyond

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[1] The Department of Public Service April 8, 2011 Filing; page 1, paragraph 2.
[2] The Department of Public Service May 27, 2011 Recommendations, page 3, paragraph 1.
[3] Ibid.
[4] Assumes no DRIPE and expensed.

three percent of Vermont load per year could conceivably fall to zero—it is certainly not the case for load reductions from the currently forecast growth rate of 0.8 percent per year.

Even if statewide load growth does turn negative, parts of the state could still experience continued load growth and offer opportunities for avoiding demand-related T&D investment. Regardless, it would be premature for the Board to restrict efficiency resource acquisition now. VEIC recommends that the Board direct CVPS and Vermont's other utilities to collaborate and utilize the Vermont State Planning Committee (VSPC) to develop and analyze alternative T&D expansion plans assuming varying load growth trajectories, and to make a proposal in the processes established by the Board for updating avoided T&D costs and for determining distribution utility geographic savings targets.

Like CVPS, GMP argues that rate impacts from increased EEU spending will be greater than projected because of lower avoided costs in the future. GMP cites internal analysis suggesting that lower avoided energy costs would almost double the rate impacts from the DPS recommended budget. VEIC has not had the opportunity to review GMP's analysis; nor has the Board or the Department.

VEIC respectfully submits that it would not be appropriate for the Board to assign any weight to GMP's analysis without first subjecting it to scrutiny by the Board and other parties. Extending the current proceeding to accommodate such review would postpone the entire DRP process, jeopardizing VEIC's ability to develop, produce, and implement a 2012 Annual Plan[5]. Instead, VEIC recommends that, after establishing the EEU budgets in this proceeding, the Board direct VEIC to file revised savings estimates based on the updated avoided costs it approves in that parallel proceeding.

VEIC substituted the preliminary estimates of updated avoided costs contained in the draft report prepared by Synapse on June 3, 2011 to estimate their potential effect on Vermont electricity bills and rates under VEIC's recommended DRP over the next six years. While not definitive, the results are nonetheless indicative of what to expect. It turns out that while long-run avoided energy costs are predicted to fall 22 percent due to declines in wholesale natural gas prices, avoided generating capacity costs have risen roughly 80 percent in part due to the presumed retirement of Vermont Yankee.

The combined effect of these changes in the first six years would increase the rate impact from VEIC's recommended DRP on residential customers by 0.03 percent compared to the Flat Budget scenario; business customers' average rates would increase by another 0.5 percent, again, compared with the Flat Budget scenario. Cutting efficiency investment by $49 million over the next six years to mitigate such minor additional rate impacts is simply not worth the economic value that would be forfeited as a result.

We also agree with CLF's DRP proposal premise that program participation levels are a function of budgets and that as program participation increases, both rate and bill impacts are positively affected.

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[5] The 2012 Annual plan is due to be filed with the board on November 1, 2011.

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In summary, VEIC recommends that the Board set aside parties' comments on the possible ramifications resulting from changes in avoided costs when determining EEUs budgets. Clearly, the Department's and VEIC's Maximum Achievable studies confirm that there is a significant reservoir of cost-effective energy efficiency potential above and beyond that projected to be attained by the budget proposals under consideration. Thus, even in the case of a reduction in avoided costs, ample cost-effective energy efficiency opportunities will still exist and will exceed the reach of the proposed budgets.

Economic Impact of VEIC's Recommended DRP Budgets

VEIC recognizes that rate and bill impacts are but one of several criteria that the Board uses in determining EEU budgets. The Department and other parties do not support the higher resource acquisition budget recommended by VEIC because they conclude that higher EEC charges will act as a drag on Vermont's economy. Focusing solely on the adverse economic impact of higher electric rates ignores the powerful economic stimulus that efficiency investment creates.

Cost-effective efficiency investment stimulates Vermont's economy both directly and indirectly. The direct economic impact comes from substituting local goods and services for imported electric energy and capacity with less local content. Building retrofits are labor intensive and produce jobs that must be physically in state and cannot be outsourced.

The indirect stimulus created by injecting bill savings into the economy is even more powerful than the direct stimulus from increasing indigenous resource intensity. Over time, spending 4.1 cents/kWh to save electricity is far better for Vermont's economy than paying three and a half times as much (14.4 cents/kWh) to supply it.[6] In the near term, participating customers end up with more money at their disposal to spend or invest. This sets up a cycle of spending and re-spending leading in turn to a multiplier effect on economic activity that lasts for the efficiency investments lifetimes.

Some studies estimate that the induced effects of re-spending savings on energy bills account for more than 90 percent of net job creation.[7] An examination of California's energy efficiency drive from 1976 to 2006 found that for every new job foregone in oil, gas, and electric power, 50 new jobs were created in California.[8] There, energy efficiency investment "reduced its (California's) energy import dependence and directed a greater percentage of its consumption to instate, employment-intensive goods and services, whose supply chains also largely reside within the state … and facilitate(ed) the economy's transition to a low carbon future".[9] For Efficiency Vermont, the average return on investment for efficiency improvements made by business

[6] From Efficiency Vermont Year 2010 Savings Claim. April 1, 2011. Page 8.
[7] Geller, Howard, John DeCicco, and John A. "Skip" Laitner. 1992. *Energy Efficiency and Job Creation.* Washington, D.C.: American Council for an Energy Efficiency Economy (ACEEE).
[8] Roland-Holst, David. October 2008. *Energy Efficiency, Innovation, and Job Creation in California*. Berkeley, CA: Center for Energy, Resources, and Economic Sustainability (CERES) at the University of California Berkeley.
[9] Ibid.

customers in 2010 was 50 percent.[10] In 2010 alone, over 3,160 projects were completed at Vermont businesses with a total annual savings of $69 million dollars.[11]

Looking to the next six years, VEIC's recommended $281 million DRP budget (total real 2011 funds available for EVT) will reduce Vermont's total electric bill for all customers by an average $22.5 million annually (2011$) during the same period. Using a mid-range number of 50 from numerous studies of jobs created per trillion BTU saved, VEIC estimates that its recommended budget will generate 445 net new jobs between 2012 and 2017.

Reducing average investment by $8.2 million annually over the next six years would slow Vermont's economic recovery by precluding half that amount of annual bill savings being injected into the economy.[12] VEIC has not attempted to estimate the economic multiplier for spending and investment induced by efficiency investment bill savings in Vermont; nevertheless, as long as the multiplier exceeds 2, any decrease in efficiency resource acquisition will act as a brake on Vermont's economy. If the resource acquisition budgets are restricted to the Department's recommendation, the 1.8 trillion BTU in foregone energy savings would deprive Vermont of 90 net new jobs.

Any estimates of the effect of any DRP scenario on Vermont's economy in the near term must consider the positive economic consequences that offset the adverse effects of greater spending. VEIC concludes that holding EEU spending over the next performance period to the budgets recommended by the Department instead of those proposed by VEIC would hurt, not help Vermont's economy. Cutting efficiency investment below current levels as advocated by Associated Industries of Vermont could even contribute to a contraction of economic activity.

Reasonableness of Budgets and Ramp Rate

VEIC also disagrees with the Department's implication that the level of program activity resulting from the adoption of VEIC's proposed budgets and associated ramp rate would not be reasonable. VEIC's DRP scenario development group included members of Efficiency Vermont's implementation team. As a result of this explicit strategy to integrate and incorporate Efficiency Vermont's implementation staff's input and recommendations into its DRP proposals, VEIC believes that its projected DRP Fixed Savings program activity was thoughtfully reviewed and achievable by including Efficiency Vermont staff's high level of expertise and capabilities.

The Department's comments raise concerns regarding the EEU's abilities to manage institutional changes required by the new Order of Appointment structure, increased EEU funding, improving codes and standards, and new technologies such as advanced metering infrastructure. Challenges presented from the change in structure from a contract model to an Order of Appointment are

[10] From Efficiency Vermont Year 2010 Savings Claim. April 1, 2011. Page 4.
[11] From Efficiency Vermont 2010 Success Stories and Performance.
[12] $281 million in real EEU spending 2012-2017 produces $22.5 million in real annual bill savings during the same period, or $80,000 in annual bill savings per $1 million in cumulative real EEU spending. The DPS budget over this period is $49 million less than what VEIC recommends, with forgone annual real bill saving equal to $3.9 million.

being addressed during the current "Transition Period" and institutional adjustments are being implemented to address budget and organizational growth.[13] VEIC remains confident that while proposed increases in funding levels and evolving technology will present Efficiency Vermont challenges in implementation and delivery, these challenges will be met responsibly and not overextend the organization's abilities. As was documented in the 2010 Overall Performance Assessment process that led to VEIC being appointed to operate Efficiency Vermont under the new structure, VEIC has a demonstrated track record of successfully managing programs that have steadily grown in both size and complexity.

Geographic Targeting Budget Determination Process

VEIC appreciates the Department's efforts to have this immediate process determine Efficiency Vermont's statewide and GT budgets. Having this knowledge in the near future would enable VEIC to proceed with initiative implementation planning for the 2012 – 2014 performance period. However, VEIC remains unconvinced that the proposed GT budget setting process and the proposed GT statewide funding allocation serves the best interests of Vermont ratepayers.

The Department's GT proposal establishes a statewide funding level (10 percent) before any determination of GT areas, incremental GT funding needs, quantification of incremental GT benefits, or allocation of those benefits. VEIC believes that an alternative proposal would be more accurate and equitable in which GT budget levels and cost allocations are determined after the fore-mentioned GT elements are researched, publically reviewed, and Board adopted. This process would also directly answer any questions about equity and benefit attribution.

To accomplish the above, VEIC proposes that Efficiency Vermont incorporate the Board's Budget and Policy Order, the new estimate of avoided costs, and the VSPC designations of GT regions with estimates of capacity reductions that are projected to occur in GT regions under statewide funding. The first steps in this process to accurately quantify GT capacity reduction needs and GT budget allocations would be for the Board to:

1. Set statewide budgets and resolve the associated policy issues, and
2. Task the VSPC with making a recommendation identifying specific GT areas, required capacity reductions and pace, benefit estimates and allocation of benefits.

One concern that this recommendation may raise is whether this approach will diminish the value of Vermont's current GT investments. VEIC believes that this concern is without foundation in that any pause in statewide investment in current GT areas will either be appropriate, or, at most, short-lived and easily resumed. As we have noted in the DRP GT track, VEIC believes that an accurate accounting of GT potential and benefits is important knowledge for the determination of Vermont's long-range energy policy and for Efficiency Vermont's GT marketing and implementation strategies.

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13 Defined in VEIC's Order of Appointment as the time between the Order of Appointment and January 1, 2012.

Green Mountain Power GT Budget Recommendation

In its May 27 comments, GMP recommends that, "GT should continue with a predetermined budget that is built from the ground up each year."[14] VEIC is not clear if it is accurately interpreting GMP's recommendation, but if the recommendation is that GT budgets are determined annually, VEIC urges the Board to reject this recommendation. An annual budget determination would be administratively burdensome and contrary to the policy goal of the establishment of a reasonably stable long-term budget. More importantly, VEIC notes that the performance metric is not GT spending but rather, capacity savings. VEIC recognizes that budgets and savings are highly correlated. However, VEIC believes that the current focus on GT budgets and spending is premature. VEIC's GT budget setting proposal importantly focuses first on the estimated incremental capacity requirements and secondarily on setting an appropriate budget to meet that need. GMP's proposal to continuing with a predetermined budget runs contrary to this important principle.

Central Vermont Public Service Comments Regarding Integrated Resource Plan Responsibilities

In regard to GT energy efficiency resource acquisition services, CVPS commented that, "it is important that the EEU be directed to collaborate with the DUs to look for implementation strategies that maximize the value of the EEU services taking into account the DUs' individual integrated planning initiatives."[15] VEIC agrees that collaboration with the Distribution Utilities is a valuable strategy that helps to maximize the EEU services. VEIC takes its participation in the VSPC as one indicator of our efforts to collaborate and note that VEIC's participation is directed by the Board. VEIC also regularly communicates and collaborates with DUs outside the VSPC. However, it is unclear to us if CVPS is recommending that the Board take further action in this regard. That is, if CVPS' comments were intended to recommend that the Board directs a shift in responsibility for the implementation of the DUs' integrated planning initiatives from the DUs to the EEU, VEIC disagrees with this recommendation. That responsibility should remain with the DUs. This issue was discussed extensively in the Docket 7466 proceedings, resulting in clear articulation of this point in "the Process and Administration of an Energy Efficiency Utility Order of Appointment", Section I, 1.D.

CVPS also asserts that the EEUs could work with the VSPC to establish budget targets for system-wide and GT services.[16] Although VEIC agrees with the policy of maximizing net benefits and the importance of collaboration with the DUs regarding implementation of their integrated resource plans (IRP) and is committed to working with the DUs via the VSPC to determine potential for GT service delivery in selected areas, this proposal appears to more broadly suggest that the EEU's shift their focus from the statewide delivery of efficiency services to become service-territory focused. VEIC believes that this proposed strategy runs counter to

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[14] GMP May 27, 2011 Comments, page 2, paragraph 4.

[15] CVPS DRP Recommendations (May 27, 2011), page 6 , paragraph 4.

[16] CVPS DRP Recommendations (May 27, 2011), page 7, paragraph 4; "This could include establishing budget targets for system-wide and GT services."

255 S. Champlain Street, Suite 7 Burlington, VT 05401-4894
T: (802) 658-6060 (800) 639-6069 F: (802) 658-1643 www.veic.org

one of the original goals of the EEU: to provide consistent statewide efficiency initiatives and offerings. In addition, VEIC believes this proposal similarly shifts responsibility to the EEU's for DU IRP implementation and recommend that the Board not adopt it.

Statewide Transmission and Distribution Avoided Costs

The current EEU practice of designing and delivering comprehensive, uniform energy efficiency services to Vermont's households and businesses continues to provide substantial value to Vermont ratepayers. Having a consistent and uniform set of eligibility requirements has minimized customer confusion, enabled customer participation, facilitated business partnerships, and helped minimize administrative and marketing expenses. Consequently, VEIC is concerned with the efficacy of having geographically differing avoided cost values for transmission and distribution. While VEIC agrees that the current values should be revisited and that the appointment of a working group to develop a proposal is an appropriate strategy, VEIC hopes that the Board will recognize the significant implementation barriers that would be erected by the adoption of multiple Vermont location specific T&D avoided cost estimates. Rather, VEIC encourages the Board to direct the working group to revisit the statewide value and leave the determination of potential additional T&D benefits to the VSPC GT working group. In that way, if GT areas are identified and adopted for EEU GT services, those area projects could be allocated additional benefits and any specific incremental T&D adders would be determined as part of the GT selection process.

VEIC appreciates the opportunity to provide these comments. VEIC remains able and willing to participate in whatever further process the Board determines appropriate. As always, should you have any questions, please do not hesitate to contact me.

Sincerely yours,

Michael J. Wickenden

Michael J. Wickenden
Planning Manager
Policy & Public Affairs

255 S. Champlain Street, Suite 7 Burlington, VT 05401-4894
T: (802) 658-6060 (800) 639-6069 F: (802) 658-1643 www.veic.org